**PROPERTIES OF A TRIG FUNCTION**

For trig equations of the form:

or

= amplitude

= height above the mid-line of the graph

= frequency constant

= how many cycles the graph makes in a 360 or 2π interval

= how many times the graph repeats itself in a 360 or 2π interval

= period

= (for sine and cosine graphs only. The period of a tan graph is )

= the time it takes for the graph to complete one cycle

= horizontal translation

= means translation to the **LEFT**

= means translation to the **RIGHT**

= vertical translation

= also known as the mid – line

= means translation **UP**

= means translation **DOWN**

To work out the maximum and minimum -values of your trig equation/graph:

D

D + A --

D - A --

D = 0

A --

-A --

**DISPLAYING TRIG EQUATIONS ON A GRAPHICS CALCULATOR**

Sketch these trig equations on a graphics calculator, to display one complete cycle. All

graphs should be in radians, unless stated otherwise.

Also, state what the values of A, B, C and D are for each of the equations. Make sure the

equations are in the form or .

**Viewing Window Settings** (to display only one cycle)

(the period of one cycle) or if in degrees. For tan it is of .

1. should be written as

i.e factorise by taking out the common factor of B (the coefficient of x). Only then does this give you the correct value of C.

C is NOT –π/2, it should be –π/4.

1. should be written as

Delta Ex 33.2 pg 309 – 310, Q8.